**TU/ CODL**

**TEZPUR UNIVERSITY**

**SEMESTER END EXAMINATION (AUTUMN), 2017**

**DEM 101 THE ENVIRONMENT: BASIC UNDERSTANDING**

Time: **3 Hours** Total Marks: **70**

*The figures in the right-hand margin indicate marks*

*for the individual question.*

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**1. Choose the correct answer 1x10=10**

i) Organisms that can’t obtain energy from abiotic source but depend on energy-rich organic molecules synthesized by green plants is called ……………………………..

A. heterotrophs B. oligotrophs

C. autotrophs D. saprotrophs

ii) Who first coined the term ‘ecology’?

A. Tansley in 1935 B. Charles Elton in 1935

C. Ernst Haeckel in 1869D. Taylor in 1935

iii) During the process of photosynthesis, radiant energy trapped by green plants is converted to-

A. mechanical energy B. chemical energy

C. potential energy D. heat energy

iv) The amount of water required to saturate the same unit volume of air under constant physical conditions is called-

A. humidity B. relative humidity

C. absolute humidity D. partial humidity

v) Energy resources derived from natural organic materials are called-

A. geothermal energy sources B. fossil fuels

C. free energy D. potential energy

vi) A group of individuals of a particular species (plants and/or animals) living together in a natural area is known as a-

A. habitat B. community

C. niche D. population

vii) The two most abundant gases in air are-

A. O2 and N2 B. H2O and O2

C. O2 and CO­2 D. N2 and CO2

viii) What is the original source of almost all the energy in most ecosystems?

A. carbohydrates B. sunlight

C. water D. carbon

ix) Indian standard for ambient noise level for Silence zone during night time is

A. 55 dB (A) B. 45 dB (A)

C. 50 dB (A) D. 40 dB (A)

x) Climate change is a-

A. local issue B. global issue

C. regional issue D. national issue

**2. Fill in the blanks 1x10=10.**

i) The term ‘Environment’ has been derived from the French word *environner* which means ……………………………..

ii) Energy resources derived from natural organic materials are called ……………………

iii) Water covers 70% of the earth’s surface but only …………..… of this is fresh water.

iv) Phosphate and nitrate found in runoff of chemically fertilized fields are most likely to cause …………………………….. in water bodies.

v) Ozone forms a well-marked ozone layer, called ozonosphere within the .............................

vi) The conversion of nitrate to nitrous oxide and nitrogen gas is called ……………………..

vii)Kyoto protocol is related to cut emissions of not only carbon dioxide, but of also other ………………………………….

viii) The phenomenon in which high levels of carbon dioxide cause global warming is known as ………………………………………

ix) Nitrogen is essential for living organisms to make ……………………………..

x) The amount of energy actually incorporated into the biomass of phototrophs is known as …………………………………..

1. Discuss the effects of excessive use of resources with reference to increasing human population. **3**
2. Write briefly about the basic rights related with Intellectual property rights (IPR). **3**
3. How the different components of environment are interrelated? Explain briefly. **4**
4. Explain the role of Thar Desert and the Himalayas in the climate of India? **4**
5. Write the conservation issues related to habitat loss and human-wildlife conflict. **4**
6. Do you think government’s intervention is necessary on reviving the common property regime? Give your view. **5**
7. What is population explosion and discuss how it affects the environment. **6**
8. Explain the stages/steps of EIA process in sequential order. **6**
9. Describe briefly the causes and consequences of water pollution. **6**
10. What is environmental degradation? Briefly discuss the major human activities that cause environmental degradation and their consequent effects? **1+8=9**

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